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Page 1 of 7

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/021,657

DATE: 01/15/2002 TIME: 19:02:43 RECEIVED

Input Set : A:\1148.app

Output Set: N:\CRF3\01152002\J021657.raw

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	3	<110>	> AF	PLIC	CANT:	ALE	BERTS	SEN,	MARC	C.							Ω	AEO	IOLIVIL	-
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	8	<120							CLEC	LTTDE	s Sel	10 EMC	LES P	TEDIF	41 TIM	2 MW1	ie ee	KIIDI.	ry and	
	9	<130				USIN														
/	1 3 TT	<140	> CI	אים פוטו. אים פוסוו	וא יחיו זא יחיו	DITC	ים. בי זריים	.40 M. M.	IMBEL	2 - 119	3/10.	/021.	. 657							
V,	14	<141	CI	IRREN	17 F.	TLTNO	. DAT	E: 2	2001-	-12-1	14 14	V,	, 03,					-	, <u></u>	•
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		<220				ana														
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	31	Glu 1	Phe	Gly	Thr	Arq	Glu	Ala	His	Leu	Thr	Pro	Ăla	Thr	Pro	Ser	Pro			
	32	1				5					10					15				
	34	ttc	ttc	cca	cta	gca	ggg	cct	cac	aag	tac	atc	gcg	ctc	ctt	ctg	gtt		96	
	35	Phe 1	Phe	Pro		Ala	Gly	Pro	His		Tyr	Ile	Ala	Leu		Leu	Val			
	36				20					25					30				1 4 4	
	38	gtc	ctc	tca	tgg	atc	ctg	gtc	cag	agg	tgg	agc	ctg	agg	aag	cag	aaa		144	
		Val 1	Leu		Trp	ше	ьeu	vaı	40	Arg	ттр	ser	ьeu	45	цуѕ	GIII	пуs			
	40	ggc (aaa	35 aga	tca	taa	cca	atc		aac	σса	acq	ata		caσ	cta	aσσ		192	
	42	Gly 1	Pro	Ara	Ser	Trp	Pro	Val	Ile	Glv	Ala	Thr	Val	Glu	Gln	Leu	Arg			
	44	011	50	5				55		- 1			60				_			
	46	aac	tac	cac	cgg	atg	cac	gac	tgg	ctt	gtc	ggg	tac	ctg	tca	cgg	cac		240	
	47	Asn '	Tyr	His	Arg	Met	His	Asp	${\tt Trp}$	Leu	Val	Gly	Tyr	Leu	Ser	Arg	\mathtt{His}			
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		Arg '	Thr	Val	Thr		Asp	Met	Pro	Phe		Ser	Tyr	Thr	Tyr		Ala			
	52				+	85	~~~	aa+	at a	ata	90	aat	220	++0	200	95 aat	tac		336	
	54 55	gac (Dro	g Lg Val	Acn	Val	Glu	Hic	Val	Len	Lvs	Thr	Agn	Phe	Thr	Asn	Tvr		330	
	56	ASP .	P10	Val	100	Vai	Gra	1113	vui	105	цу	****		1 110	110		-1-			
•		ccc a	aaσ	σσα		ata	tac	aga	tcc		atq	gac	gtg	ctc		ggt	gac		384	
	59	Pro	Lys	Gly	Ile	Val	Tyr	Arg	Ser	Tyr	Met	Asp	Val	Leu	Leu	Gly	Asp			
	60			115					120					125						
		ggc i																	432	
		Gly :		Phe	Asn	Ala	Asp		Glu	Leu	Trp	Arg		Gln	Arg	Lys	Thr			
	64	,	130					135					140	+ +-	255	~~~	2++		480	

66 gcg agt ttc gag ttc gcc tcc aag aac ctg agg gat ttc agc gcc att

RAW SEQUENCE LISTING

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	145	++-				150	- 4				155					160	
71	y Ly	Dho	aya	gay	Lac	Com	ctg	aag	ctg	tcg	ggt	ata	ctg	agc	cag	gca	528
72	Vai	Pile	Arg	GIU	165	ser	ьeu	Lys	Leu	170	GTĀ	шe	Leu	Ser	Gln	Ala	
	tcc	aad	αca	aac		att	ata	a a a	2+4		<i>α</i>	a++	+		175 agg		
75	Ser	Lvs	Δla	61v	Luc	yıı Vəl	y Ly Val	yac	aly Mot	Cay	gaa	CLL	Tac	atg	agg	atg	576
76	001	2,5	mu	180	БуЗ	Val	vai	мэр	185	GIII	GIU	Leu	TAT	меt 190	Arg	met	
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79	Thr	Leu	Asp	Ser	Tle	Cvs	Lvs	Val	999 Glv	Dho	999 G1v	Val	Glu	Tlo	Gly	acy ™h∞	624
80			195			0,0	275	200	OT A	THE	Gry	vai	205	TTE	СТУ	T IIT	
	ctq	tcq	cca	gat	ctc	ccc	σασ		age	ttc	aca	cad		ttc	gat	acc	672
83	Leu	Ser	Pro	Asp	Leu	Pro	Glu	Asn	Ser	Phe	Ala	Gln	Ala	Phe	Asp	Δla	0/2
84		210					215					220	mu	THE	изр	AIG	
86	gcc	aac	atc	atc	atc	acq		caa	ttc	atc	gac		cta	taa	cgc	atc	720
87	Ala	Asn	Ile	Ile	Ile	Thr	Leu	Arq	Phe	Ile	Asp	Pro	Leu	Tro	Arg	Tle	720
88	225					230		,			235				9	240	
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91	Lys	Arg	Phe	Phe	His	Val	Gly	Ser	Ğlu	Ăla	Leu	Leu	Ala	Gln	Ser	Ile	, 00
92					245					250					255		
94	aag	ctc	gtg	gac	gag	ttc	acc	tac	agc	gtg	atc	cgc	cgg	agg	aag	qcc	816
95	Lys	Leu	Val	Asp	Glu	Phe	Thr	Tyr	Ser	Val	Ile	Arg	Arg	Arg	Lys	Ala	•
96				260					265				-	270	-		
98	gag	atc	gtc	gag	gtc	cgg	gcc	agc	ggc	aaa	cag	gag	aag	atg	aag	cac	864
99	Glu	Ile	Val	Glu	Val	Arg	Ala	Ser	Gly	Lys	Gln	Glu	Lys	Met	Lys	His	
100			275					280					285				
102	gac	atc	ctg	tca	caa	ttc	atc	ααα	cta	aac	σασ	acc	aac	~~~		~~~	010
	7	T1 -	*	a .		-1		545		990	949	J	220	gac	gac	gge	912
104	Asp	Ile	Leu	Ser	Arg	Phe	Ile	Glu	Leu	Gly	Glu	Ala	Gly	Asp	gac Asp	Gly	912
104	Asp	11e 290	Leu	Ser	Arg	Phe	Ile 295	Glu	Leu	Gly	Glu	Ala 300	Gly	Asp	Asp	Gly	
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104 106 107	Asp ggc Gly	Ile 290 ggc	ttc.	Ser ggg	Arg gac	Phe gat Asp	Ile 295 aag Lys	Glu agc	Leu ctc	Gly cgg	Glu gac Asp	Ala 300 gtg	Gly gtg	Asp ctc	Asp aac	Gly ttc Phe	
104 106 107 108	ggc Gly 305	11e 290 ggc Gly	ttc Phe	Ser ggg Gly	gac Asp	Phe gat Asp 310	Ile 295 aag Lys	Glu agc Ser	Leu ctc Leu	Gly cgg Arg	gac Asp 315	Ala 300 gtg Val	Gly gtg Val	ctc Leu	Asp aac Asn	ttc Phe 320	960
104 106 107 108 110	ggc Gly 305 gtg	290 ggc Gly	ttc Phe gcc	ggg Gly	gac Asp	Phe gat Asp 310 gac	Ile 295 aag Lys acg	Glu agc Ser	ctc Leu gcg	cgg Arg	gac Asp 315 acg	Ala 300 gtg Val ctg	gtg Val	ctc Leu tgq	aac Asn ttc	ttc Phe 320	
104 106 107 108 110 111	ggc Gly 305 gtg	290 ggc Gly	ttc Phe gcc	ggg Gly	gac Asp cgg Arg	Phe gat Asp 310 gac	Ile 295 aag Lys acg	Glu agc Ser	ctc Leu gcg	cgg Arg acg Thr	gac Asp 315 acg	Ala 300 gtg Val ctg	gtg Val	ctc Leu tgq	aac Asn ttc Phe	ttc Phe 320	960
104 106 107 108 110 111	ggc Gly 305 gtg Val	290 ggc Gly atc	ttc Phe gcc Ala	gly ggg gly	gac Asp cgg Arg 325	gat Asp 310 gac Asp	Ile 295 aag Lys acg Thr	agc Ser acg Thr	ctc Leu gcg Ala	cgg Arg acg Thr	gac Asp 315 acg Thr	Ala 300 gtg Val ctg Leu	gtg Val tcg Ser	ctc Leu tgg	Asp aac Asn ttc Phe 335	ttc Phe 320 acg Thr	960 1008
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104 106 107 108 110 111 112 114 115 116 118	ggc Gly 305 gtg Val cac His	ggc Gly atc Ile atg Met	ttc Phe gcc Ala gcc Ala	ggg Gly ggg Gly atg Met 340	gac Asp cgg Arg 325 tcc Ser	gat Asp 310 gac Asp cac His	Ile 295 aag Lys acg Thr ccg Pro	agc Ser acg Thr gac Asp	ctc Leu gcg Ala gtg Val 345 gcg	cgg Arg acg Thr 330 gcc Ala	gac Asp 315 acg Thr gag Glu	Ala 300 gtg Val ctg Leu aag Lys	gtg Val tcg Ser ctg Leu	tgg Trp cgc Arg 350	Asp aac Asn ttc Phe 335 cgc Arg	ttc Phe 320 acg Thr gag Glu	960 1008
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104 106 107 108 110 111 112 114 115 116 118 119 120 122	ggc Gly 305 gtg Val cac His ctg Leu	ggc Gly atc Ile atg Met tgc Cys	ttc Phe gcc Ala gcc Ala gcg Ala 355	ggg Gly ggg Gly atg Met 340 ttc Phe	gac Asp cgg Arg 325 tcc ser gag Glu	gat Asp 310 gac Asp cac His gcg Ala	Ile 295 aag Lys acg Thr ccg Pro gag Glu	agc Ser acg Thr gac Asp cgc Arg 360 gcc	ctc Leu gcg Ala gtg Val 345 gcg Ala	cgg Arg acg Thr 330 gcc Ala cgc Arg	gac Asp 315 acg Thr gag Glu gag Glu	Ala 300 gtg Val ctg Leu aag Lys gag Glu	gtg Val tcg Ser ctg Leu ggc Gly 365	tgg Trp cgc Arg 350 gtc Val	Asp aac Asn ttc Phe 335 cgc Arg acg Thr	ttc Phe 320 acg Thr gag Glu ctc Leu	960 1008 1056
104 106 107 108 110 111 112 114 115 116 118 119 120 122 123 124	ggc Gly 305 gtg Val cac His ctg Leu gtg	ggc Gly atc Ile atg Met tgc Cys ctc Leu 370	ttc Phe gcc Ala gcc Ala 355 tgc Cys	ggg Gly ggg Gly atg Met 340 ttc Phe ggc Gly	gac Asp cgg Arg 325 tcc Ser gag Glu ggc	gat Asp 310 gac Asp cac His gcg Ala gct	Ile 295 aag Lys acg Thr ccg Pro gag Glu gac Asp 375	agc Ser acg Thr gac Asp cgc Arg 360 gcc Ala	ctc Leu gcg Ala gtg Val 345 gcg Ala gac Asp	cgg Arg acg Thr 330 gcc Ala cgc Arg	gac Asp 315 acg Thr gag Glu gag Glu aag	Ala 300 gtg Val ctg Leu aag Lys gag Glu gcg Ala 380	gtg Val tcg Ser ctg Leu ggc Gly 365 ttc Phe	tgg Trp cgc Arg 350 gtc Val	Asp aac Asn ttc Phe 335 cgc Arg acg Thr	ttc Phe 320 acg Thr gag Glu ctc Leu cgc Arg	960 1008 1056 1104
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104 106 107 108 110 111 112 114 115 116 118 119 120 122 123 124 126 127	ggc Gly 305 gtg Val cac His ctg Leu gtg Val	atc Gly atc Ile atg Met tgc Cys ctc Leu 370 gcg	ttc Phe gcc Ala gcc Ala gcg Ala 355 tgc Cys cag	ggg Gly ggg Gly atg Met 340 ttc Phe ggc Gly	gac Asp cgg Arg 325 tcc Ser gag Glu ggc Gly	gat Asp 310 gac Asp cac His gcg Ala gct Ala	Ile 295 aag Lys acg Thr ccg Pro gag Glu gac Asp 375 ctc	agc Ser acg Thr gac Asp cgc Arg 360 gcc Ala ctc	ctc Leu gcg Ala gtg Val 345 gcg Ala gac Asp	cgg Arg acg Thr 330 gcc Ala cgc Arg gac Asp	gac Asp 315 acg Thr gag Glu gag Glu aag Lys	Ala 300 gtg Val ctg Leu aag Lys gag Glu gcg Ala 380 agc	gtg Val tcg Ser ctg Leu ggc Gly 365 ttc Phe	tgg Trp cgc Arg 350 gtc Val gcc Ala	Asp aac Asn ttc Phe 335 cgc Arg acg Thr gcc Ala	Cly ttc Phe 320 acg Thr gag Glu ctc Leu cgc Arg	960 1008 1056 1104
104 106 107 108 110 111 112 114 115 116 118 119 120 122 123 124 126 127 128	ggc Gly 305 gtg Val cac His ctg Leu gtg Val gtg Val 385	ggc Gly atc Ile atg Met tgc Cys ctc Leu 370 gcg Ala	ttc Phe gcc Ala gcc Ala gcg Ala 355 tgc Cys cag Gln	ggg Gly ggg Gly atg Met 340 ttc Phe ggc Gly ttc	gac Asp cgg Arg 325 tcc Ser gag Glu ggc Gly gcg Ala	gat Asp 310 gac Asp cac His gcg Ala gct Ala ggc Gly 390	Ile 295 aag Lys acg Thr ccg Pro gag Glu gac Asp 375 ctc Leu	agc Ser acg Thr gac Asp cgc Arg 360 gcc Ala	ctc Leu gcg Ala gtg Val 345 gcg Ala gac Asp	cgg Arg acg Thr 330 gcc Ala cgc Arg gac Asp tac	gac Asp 315 acg Thr gag Glu gag Glu aag Lys gac Asp 395	Ala 300 gtg Val ctg Leu aag Lys gag Glu gcg Ala 380 agc Ser	gtg Val tcg Ser ctg Leu ggc Gly 365 ttc Phe ctc Leu	tgg Trp cgc Arg 350 gtc Val gcc Ala	Asp aac Asn ttc Phe 335 cgc Arg acg Thr gcc Ala aag Lys	ttc Phe 320 acg Thr gag Glu ctc Leu cgc Arg	960 1008 1056 1104 1152
104 106 107 108 110 111 112 114 115 116 118 119 120 122 123 124 126 127 128 130	ggc Gly 305 gtg Val cac His ctg Leu gtg Val gtg Val 385 gtc	ggc Gly atc Ile atg Met tgc Cys ctc Leu 370 gcg Ala	ttc Phe gcc Ala gcc Ala gcg Ala 355 tgc Cys cag Gln ctc	ggg Gly ggg Gly atg Met 340 ttc Phe ggc Gly ttc Phe	gac Asp cgg Arg 325 tcc Ser gag Glu ggc Gly gcg Ala	gat Asp 310 gac Asp cac His gcg Ala gct Ala ggc Gly 390 tgc	Ile 295 aag Lys acg Thr ccg Pro gag Glu gac Asp 375 ctc Leu gtc	agc Ser acg Thr gac Asp cgc Arg 360 gcc Ala ctc Leu acc	ctc Leu gcg Ala gtg Val 345 gcg Ala gac Asp acc Thr	cgg Arg acg Thr 330 gcc Ala cgc Arg gac Arg tac Tyr	gac Asp Glu gag Glu aag Lys gac Asp 395 ctc	Ala 300 gtg Val ctg Leu aag Lys gag Glu gcg Ala 380 agc Ser	gtg Val tcg Ser ctg Leu ggc Gly 365 ttc Phe ctc Leu	tgg Trp cgc Arg 350 gtc Val gcc Ala ggc Gly	Asp aac Asn ttc Phe 335 cgc Arg acg Thr gcc Ala aag Lys	ttc Phe 320 acg Thr gag Glu ctc Leu cgc Arg ctg Leu 400 gcc	960 1008 1056 1104 1152
104 106 107 108 110 111 112 114 115 116 118 119 120 122 123 124 126 127 128 130	ggc Gly 305 gtg Val cac His ctg Leu gtg Val gtg Val 385 gtc	ggc Gly atc Ile atg Met tgc Cys ctc Leu 370 gcg Ala	ttc Phe gcc Ala gcc Ala gcg Ala 355 tgc Cys cag Gln ctc	ggg Gly ggg Gly atg Met 340 ttc Phe ggc Gly ttc Phe	gac Asp cgg Arg 325 tcc Ser gag Glu ggc Gly gcg Ala	gat Asp 310 gac Asp cac His gcg Ala gct Ala ggc Gly 390 tgc	Ile 295 aag Lys acg Thr ccg Pro gag Glu gac Asp 375 ctc Leu gtc	agc Ser acg Thr gac Asp cgc Arg 360 gcc Ala ctc Leu acc	ctc Leu gcg Ala gtg Val 345 gcg Ala gac Asp acc Thr	cgg Arg acg Thr 330 gcc Ala cgc Arg gac Arg tac Tyr	gac Asp Glu gag Glu aag Lys gac Asp 395 ctc	Ala 300 gtg Val ctg Leu aag Lys gag Glu gcg Ala 380 agc Ser	gtg Val tcg Ser ctg Leu ggc Gly 365 ttc Phe ctc Leu	tgg Trp cgc Arg 350 gtc Val gcc Ala ggc Gly	Asp aac Asn ttc Phe 335 cgc Arg acg Thr gcc Ala aag Lys	ttc Phe 320 acg Thr gag Glu ctc Leu cgc Arg ctg Leu 400 gcc	960 1008 1056 1104 1152 1200

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140	СТА	1111	цуS 435	Vα⊥	Arg	Ата	GIY			. va⊥	Thr	Tyr		Pro	Tyr	Ser	
		aaa		2+4	~~~	+	222	440					445				
1/12	Mot	999 Clv	Ara	a Ly Mot	gay	Lac	aac	Lgg	ggc	CCC	gac	gcg	gcg	agc	ttc	cgg	1392
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			caa	taa	2+0	220			~~~	~~~	++-	460					
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148	465	Olu	nrg	112	116	470	GIU	ASP	СТУ	Ата	475		ASI	Ата	ser		
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162	atg	acc	atc	ctc	tcc	atσ	aca		aac	ata	ааσ	gtc		atc	tet	add	1632
163	Met	Thr	Ile	Leu	Ser	Met	Ala	His	Glv	Leu	Lvs	Val	Ara	Val	Ser	Δra	1032
164		530					535	-	1			540	**** 9	, aı	DCI	ALG	
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168	545			_		-	550		-			555			204	11011	
170	cca	cga	caa	ata	acg	ctc	gtg	tta	caa	att	tgc	atg	cat	qca	tat	aaσ	1728
171	Pro	Arg	Gln	Ile	Thr	Leu	Val	Leu	Gln	Ile	Cys	Met	His	Ala	Cvs	Lvs	2,20
172	560					565					570				_	575	
174	gga	aag	cga	tgg	gtt	tca	ttg	gtg	gct	tgg	ctt	aag	cct	taaa	aact	cc	1777
175	Gly	Lys	Arg	Trp	Val	Ser	Leu	Val	Ala	Trp	Leu	Lys	Pro				
176					580					585							
178	gtcg	ggtc	ett g	rcgaa	ccac	cc ac	catca	ictag	, tgt	ttttg	jtac	tcta	ictco	etc a	igtgg	raagtg	1837
				taca	ıagtt	c at	cata	itata	ı tta	itcct	ctt	tctt	aaaa	iaa a	aaaa	aaaaa	1897
	aaac	_	_														1906
	<210																
	<211				8												
	<212																
	<213					mays	}										
	<400						_	_									
191	GIU	rne	σтλ	Thr		GLu	Ala	His	Leu		Pro	Ala	Thr	Pro	Ser	Pro .	
192	1 Dho	nl	Desc	.	5	a 3	_	•	_	_10					15		
194	ьпе	ьие	Pro	ьeu	Ala	GLY	Pro	His		Tyr	Ile	Ala	Leu		Leu	Val	
	Wa 1	T 0	Co	20	T1 -	T	17- 7	0 1	25		_	_	_	30			
197	val	ьeu	ser 35	тр	тте	ьeu	vaı		arg	Trp	Ser	Leu		Lys	Gln	Lys	
	G1 17	Dro		g^~	m ~~	Dro	37n 7	40	al	7 T -	m 1	77-7	45	a 1	_	_	
200	эту	510	лту	per.	ттБ	5T.O	٧aı	тте	σтλ	нта	ınr	Val	GĮU	GIn	Leu	Arg	

RAW SEQUENCE LISTING

DATE: 01/15/2002 PATENT APPLICATION: US/10/021,657 TIME: 19:02:43

Input Set : A:\1148.app
Output Set: N:\CRF3\01152002\J021657.raw

201		50					55									
				λκα	. Mot	mia			т		01 .	60		_	_	•
203	65	тут	птъ	ALG	Met	. HIS	ASP	Trp) Leu	vaı			Leu	Ser	Arg	His
			3751	шhа		70		В	- 1	-1	75					80
200	, Arg	THE	val	Thi	· vaı	Asp	met	Pro	Phe			Tyr	Thr	Tyr		Ala
207		D	11- 1	3	85		•		_	90					95	
209	ASP	Pro	val	Asn	val	Glu	His	Val			Thr	Asn	Phe	Thr	Asn	Tyr
210		T	a 1	100		_	_	_	105					110		
212	Pro	гĀЗ	GIY	тте	· Val	Tyr	Arg			Met	. Asp	Val			Gly	Asp
213			115				_	120					125			
215	GLY	Ile	Phe	Asn	Ala	Asp	Gly	Glu	Leu	Trp	Arg	Lys	Gln	Arg	Lys	Thr
216		130					135					140				
218	Ala	Ser	Phe	Glu	Phe		Ser	Lys	Asn	Leu	Arg	Asp	Phe	Ser	Ala	Ile
	145					150					155					160
221	Val	Phe	Arg	Glu			Leu	Lys	Leu	Ser	Gly	Ile	Leu	Ser	Gln	Ala
222					165					170					175	
224	Ser	Lys	Ala	Gly	Lys	Val	Val	Asp	Met	Gln	Glu	Leu	Tyr	Met	Arg	Met
225				180					185					190		
227	Thr	Leu	Asp	Ser	Ile	Cys	Lys	Val	Gly	Phe	Gly	Val	Glu	Ile	Gly	Thr
228			195	•				200					205			
230	Leu	Ser	Pro	Asp	Leu	Pro	Glu	Asn	Ser	Phe	Ala	Gln	Ala	Phe	Asp	Ala
231		210					215					220			_	
233	Ala	Asn	Ile	Ile	Ile	Thr	Leu	Arg	Phe	Ile	Asp	Pro	Leu	Trp	Arq	Ile
234	225					230					235					240
236	Lys	Arg	Phe	Phe	His	Val	Gly	Ser	Glu	Ala	Leu	Leu	Ala	Gln	Ser	Ile
237					245					250					255	
239	Lys	Leu	Val	Asp	Glu	Phe	Thr	Tyr	Ser	Val	Ile	Ara	Ara	Ara		Ala
240				260				_	265				5	270	-10	
242	Glu	Ile	Val	Glu	Val	Arq	Ala	Ser	Glv	Lvs	Gln	Glu	Lvs		Lvs	His
243			275			_		280					285	1100	2,5	111,0
245	Asp	Ile	Leu	Ser	Arg	Phe	Ile	Glu	Leu	Glv	Glu	Ala		Asp	Asp	Glv
246	-	290			-		295			1		300	01 1		шър	GT1
248	Gly	Gly	Phe	Gly	Asp	Asp	Lvs	Ser	Leu	Ara	Asp		Val	Leu	Δsn	Dhe
249	305	_		-	•	310	_			5	315	,	, 41		11011	320
251	Val	Ile	Ala	Glv	Arg	Asp	Thr	Thr	Ala	Thr	Thr	Len	Ser	rrn	Dho	Thr
252				2	325					330		шец	DCI	111	335	1111
254	His	Met	Ala	Met		His	Pro	Asp	Val		Glu	T.v.c	Τ.Δ11	λrσ	333	Clu
255				340					345		Olu	шуз	шеи	350	AIY	GIU
257	Leu	Cvs	Ala		Glu	Δla	Glu	Ara		Δrα	Glu	Glu	C117	730 Val	Thr	T OU
258		. 1	355				024	360	mu	**** 9	Olu	GIU	365	vaı	111T	ьeu
	Val	Leu		Glv	Glv	Δla	Asn		Δen	Δen	Lys	λla	Dho	715	. ה ה	7
261		370	-1-	1	0-1		375	1114	sp	sp	цуз	380	rne	нта	нта	AIG
	Val		Gln	Phe	Δla	Glv		Τ.Δ11	Thr	Пттх	Asp	200	T 011	C1	T	T
264	385			- 110		390	LCu	ncu	1111	1 7 T	395	261	ьеu	стх	гуѕ	
		Tvr	Len	His	Δla		Va 1	ጥኩዮ	Glu	Πhr	Leu	7 20	Ton	Птт	Dma	400
267		-1-	пси	1140	405	Cys	Val	1111	GIU	410	Leu	Arg	Leu	TYT		Ата
	Va 1	Pro	Gln	Δen		Luc	Ċ157	Tla	Lou		7 00	7	*** 1	T	415	
270		- 10	V-11	420		פעה	ату	TTE	425	GIU	Asp	мзр	val		LLO	Asp
	Glv	Thr			λνα	λ1 =	C1 **	C1		17-1	m la	m	37 n 3	430	m	•
273	O T Y	T 11T	цу5 435	4 a I	лту	. пта	ату		мес	val	Thr	туr		Pro	туr	ser
2,5			4 J J					440					445			

RAW SEQUENCE LISTING DATE: 01/15/2002 PATENT APPLICATION: US/10/021,657 TIME: 19:02:43

Input Set : A:\1148.app

Output Set: N:\CRF3\01152002\J021657.raw

```
275 Met Gly Arg Met Glu Tyr Asn Trp Gly Pro Asp Ala Ala Ser Phe Arg
          450
      278 Pro Glu Arg Trp Ile Asn Glu Asp Gly Ala Phe Arg Asn Ala Ser Pro
      279 465
                                                   475
      281 Phe Lys Phe Thr Ala Phe Gln Ala Gly Pro Arg Ile Cys Leu Gly Lys
      282
                          485
                                               490
      284 Asp Ser Ala Tyr Leu Gln Met Lys Met Ala Leu Ala Ile Leu Phe Arg
                      500
                                           505
                                                               510
     287 Phe Tyr Ser Phe Arg Leu Leu Glu Gly His Pro Val Gln Tyr Arg Met
     288
                  515
                                      520
     290 Met Thr Ile Leu Ser Met Ala His Gly Leu Lys Val Arg Val Ser Arg
                                  535
     293 Ala Val Cys His Gly Asp Leu Asp Met Asp Ile Val Pro Leu Asn Pro
     294 545
                                                   555
     296 Arg Gln Ile Thr Leu Val Leu Gln Ile Cys Met His Ala Cys Lys Gly
     297
                          565
                                               570
     299 Lys Arg Trp Val Ser Leu Val Ala Trp Leu Lys Pro
                      580
     303 <210> SEQ ID NO: 3
     304 <211> LENGTH: 494
     305 <212> TYPE: DNA
     306 <213> ORGANISM: Sorghum sp.
     308 <220> FEATURE:
     309 <221> NAME/KEY: modified_base
     310 <222> LOCATION: (1)..(494)
     311 <223> OTHER INFORMATION: "n" bases may be a, t, c, g, other or unknown
     313 <400> SEQUENCE: 3
     314 ggaattcggc ttatgccgtt cacttcctac acctacatcg ctgacccggt gaatgtcgag 60
     315 catgicetea agactaacti caccaattae eccaaggggg aegigtaeag atectaeatg 120
     316 gatgtgctcc tcggtgacgg catattcaac gctgacggcg agctgtggag gaagcagagg 180
     317 aagacggcga gtttcgagtt cgcctccaag aacctgaggg atttcagtgc caatgttttc 240
     318 agagagtact ccctgaagct gtcgggcata ctgagtcagg catccaaggc aggcaaagtt 300
W--> 319 gttgacatgc aggaacttta catgaggatg acactggact cgatctgcaa ngttgggttc 360
    ^{\prime}320 ggggtcnana teggeaeget gteneeggat eteceegaga acagettene ecaagegtte 420
w-> 321 gatgccgcta acatcatcgt cacnetgcgg ttcatccace enetgtggcg catecagaag 480
W--> 322 ttcttccccn gtca
     325 <210> SEQ ID NO: 4
     326 <211> LENGTH: 158
     327 <212> TYPE: PRT
    328 <213> ORGANISM: Sorghum sp.
     330 <220> FEATURE:
    331 <221> NAME/KEY: MOD_RES
    332 <222> LOCATION: (1)..(158)
    333 <223> OTHER INFORMATION: "Xaa" may be any, other or unknown amino acid
    335 <400> SEQUENCE: 4
    336 Met Pro Phe Thr Ser Tyr Thr Tyr Ile Ala Asp Pro Val Asn Val Glu
    339 His Val Leu Lys Thr Asn Phe Thr Asn Tyr Pro Lys Gly Asp Val Tyr
    340
                      20
```

25

The Canadior Kaa has been detected in the Sequence Listing. Notew the Sequence Listing to insure a corresponding explanation is presented in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

DATE: 01/15/2002 PATENT APPLICATION: US/10/021,657 TIME: 19:02:44

Input Set : A:\1148.app

Output Set: N:\CRF3\01152002\J021657.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 L:322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 $L\colon\!357$ $M\colon\!341$ W: (46) "n" or "Xaa" used, for SEQ ID#:4 L:360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4